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## CLAIMS

- Tas.A 'including sheath thermal protection 1. Α substrate (10) and a reflective foil (20)/ fixed to the substrate (10, 14), the substrate 14) deformable from a relaxed configuration, elastically characterized in that the foil (20) is pleated on the substrate (10, 14) in said relaxed configuration.
  - 2. A protection sheath according to claim 1, characterized in that the substrate (10, 14) has an outside surface (11) provided with openings/(12) and the foil (20) is pleated in line with said openings (12).
  - A protection sheath / according to claim characterized in that the foil (20) is pleated inside the openings (12).
  - 4. A protection sheath/according to any of claims 1 to 3, characterized in that/the pleats in the foil (20) are irregularly shaped and or #ented.
  - A protection sheath according to any of claims 1 to 4, characterized in the that the pleats in the foil (20) are adapted to form reserves of air (15).
  - 6. A protection sheath according to any of claims 1 to 5, characterized in that the substrate (10) is made of textile and includes openings (12) between textile threads (13) and the foil (20) is pleated in line with said openings (12).
  - 7. A protection sheath according to claim formed of characterized in that the substrate (10) is braided or knitted threads (13).
  - protection sheath according to claim characterized in #hat the reflective foil (20) is pleated between the braided or knitted threads (13).
  - A protection sheath according to any of claims 1 to 5, characterized in that the substrate is a corrugated plastics material tube (14).

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- 10. A protection sheath according to claim 9, characterized in that the corrugated plastics material tube (14) is slit longitudinally.
- 11. A protection sheath according to claim 9 or claim 10, characterized in that the foil (20) is pleated inside annular recesses (12) of the corrugated tube (14).
- 12. A protection sheath according to any of claims 1 to 11, characterized in that the substrate (10, 14) is tubular.
- 13. A protection sheath according to any of claims 1 to 12, characterized in that the substrate (10, 14) can be stretched elastically in the longitudinal and/or radial direction.
- 14. A protection sheath according to any of claims 1 to 13, characterized in that the reflective foil (20) is woven from aluminized glass fibers.
- 15. A method of fabricating a protection sheath including a substrate (10, 14) and a reflective foil (20) adapted to be fixed to said substrate (10, 14), characterized in that it includes the following steps:
- elastically stretching the substrate (10, 14 from a relaxed configuration;
- fixing the reflective foil (20) to the stretched substrate (10, 14); and
- elastically shrinking the substrate (10, 14) into said relaxed configuration.
  - 16. A fabridation method according to claim 15, characterized in that, in the stretching step, the substrate (10, 14) is stretched longitudinally and/or radially.
  - 17. A fabrication method according to either claim 15 or claim 16, characterized in that the shrinking of the substrate (10, 14) covered with the reflective foil (20) is forced by means of rollers (22a, 22b) adapted to press said foil (20) onto the substrate (10, 14).

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- 18. A fabrication method according to any of claims 15 to 17, characterized in that the foil (20) is pleated inside openings (12) in the substrate (10, 14) during the shrinkage step.
- 19. A fabrication method according to any of claims 15 to 18, characterized in that, in the fixing step, the reflective foil (20) is applied in the lengthwise direction of the substrate (10, 14).
- 20. A fabrication method according to any of claims 15 to 18, characterized in that the reflective foil (20) is applied in a helix around the substrate (10, 14).
- 21. A fabrication method according to any of claims 15 to 20, characterized in that, in the fixing step, the reflective foil (20) is fixed to the substrate (10, 14) by an adhesive.
- 22. A fabrication method according to any of claims 15 to 21, characterized in that the substrate (10) includes braided or knitted heat-shrink threads (13) and in that during the step of shrinking the substrate (10) the sheath is heated to shrink the heat-shrink threads (13).

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